Lenovo Workstation Solutions

Lenovo Access

Remote Workstations Solution Guide

intel®

Remote work challenge for power users

Remote and hybrid work are here to stay—but for power users, many current solutions can't keep up. Engineers, designers, researchers, and creators need more than basic access—they need responsive, high-performance compute from anywhere, without compromising on collaboration, security, or cost-efficiency.

Legacy options like public cloud or VDI often introduce latency, limit performance, and scale poorly—especially for graphics- and data-intensive workflows. IT teams face growing pressure to support these users while managing costs, security, and tool sprawl.

That's why we developed Lenovo Access—a series of remote workstations solutions that deliver full CPU and GPU performance, real-time responsiveness, and centralized security. A smarter way to support Power Users—without the tradeoffs of cloud or VDI.

Pain points for remote power users today

- Slow & inefficient workflows
- Poor collaboration tools
- Painful eco-system dependencies
- Security / data privacy concerns
- Cost & complexity to scale

Lenovo Access: Elevate your remote work experience

In today's dynamic work environment, businesses need solutions that offer flexibility, performance, and security for remote workers without compromising on user experience. Lenovo Access offers expertly designed reference architectures, or blueprints, to meet these needs—providing low latency remote access to high-performance workstations from anywhere, on virtually any device.

Why Lenovo Access

Faster performance
Access to full CPU Turbo performance and a dedicated GPU per user—up to 2X faster than public cloud or VDI solutions

Seamless user experience
Best-in-class remote protocols ensure local-like responsiveness even from thousands of miles away

Cost-savings
Cloud-like flexibility at a fraction of the cost of public cloud and traditional data center solutions

Enhanced security
Robust security features, including Lenovo ThinkShield, protect your data and intellectual property, ensuring peace of mind in remote environments.

ThinkStation P3 Ultra SFF

Lenovo Access Blueprint

Lenovo is pioneering the concept of workstations as data center solutions. Optimized for rack deployment and paired with best-in-class software and services, they deliver better performance at a lower price point than the public cloud or VDI.

Lenovo Access offers a robust solution featuring seven ThinkStation P3 Ultra SFF workstations in a 5U rack shelf, securely placing powerful workstations within your data center. This provides:

- 1:1 workstation access for up to 7 users
- Latest Intel® Core™ Ultra processors (Series 2)
- Turbo clock speeds up to 5.7GHz
- Up to NVIDIA RTX™ 4000 SFF Ada Generation GPU
- Faster load times for single-threaded applications like CAD/CAM and BIM

Workstation performance

It's undeniable that a workstation delivers excellent processing power—it is a tool designed by Power Users for Power Users.

Powerful hardware: Equipped with high-performance Intel® Core™ Ultra processors and Intel® vPro with NVIDIA RTX™ professional graphics—ideal for demanding tasks like 3D rendering, scientific simulations, and video editing.

Reliability and durability: Built robust and certified for your ISV applications, Lenovo ThinkStations minimize downtime in professional environments.

Customization and expandability: Highly customizable with expansion slots for more memory, storage, and specialized graphics cards to meet specific needs.

User-Friendly design: Easily serviceable with accessible internals, making upgrades and maintenance straightforward.

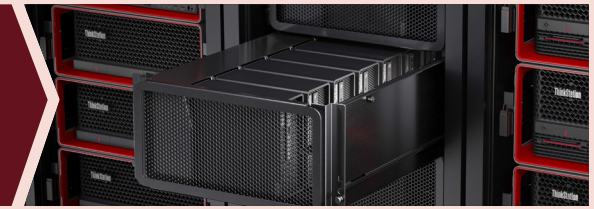
Cost-effectiveness: Delivers high performance while being extremely cost-effective compared to traditional data center solutions.

Data locality: Provides low latency when co-located with network-attached storage, eliminating the need for syncing data over a wide area network.

Cloud-like flexibility

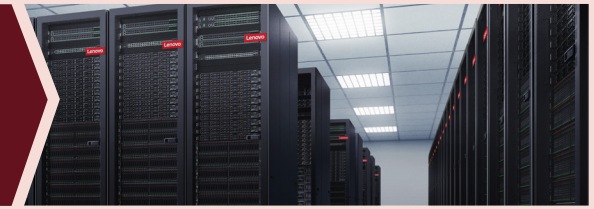
Get more from your ThinkStation:

1:1 Remote workstation:
Achieve ultimate performance with turbo clock speeds.



Partial virtualization:
Increase flexibility with shared resources. Utilize dedicated NVIDIA RTX GPUs—support up to 8 GPUs in a Lenovo ThinkStation PX.

Full virtualization:
Increase density with NVIDIA RTX vWS (Virtual Workstation). Create virtual GPU profiles for multiple users.



Flexible purchasing models: Switch from a standard CapEx purchase to an OpEx, subscription model with Lenovo TruScale—free up cash flow and reduce total cost of ownership.

Enhanced security: Robust security features, including Lenovo ThinkShield, protect your data and intellectual property, ensuring peace of mind in remote environments.

Remote management: Manage your remote environment effectively with Lenovo's tools, including Lenovo Device Manager and the industry's first true out-of-band management solution with ThinkStation BMC.

Increased density: Custom rack solutions enable Lenovo ThinkStations to be mounted in the data center, occupying as little as 0.7U with the P3 Ultra SFF, or support more users with virtualization on high-end ThinkStation platforms.

Key elements of remote workstation solutions

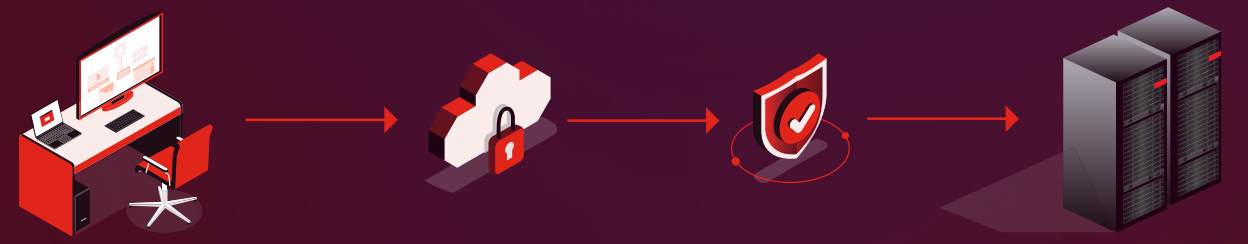
Remote protocols: Hardware-accelerated encrypted pixel streaming offers various options with different features. Some excel in accurate color representation, while others better support peripherals like tablets or 3D mice.

Connection brokers: Some remote protocols include basic integrated brokers, but full-featured brokers like Leostream provide greater control to manage resources across hybrid environments.

Connection gateways: Provide secure access to corporate networks.

Remote management: Hardware and software tools to manage your hybrid environment.

Accelerated end-to-end compression



Client/Receiver
Hardware decoding of the encrypted Pixel Stream

Gateway/VPN
Securely access the corporate network

Connection Broker
Manage all systems both virtual and physical

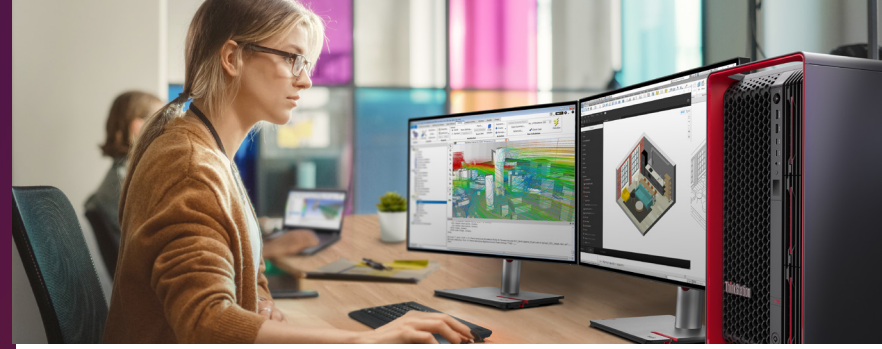
Lenovo ThinkStations
Optimized for the data center.

CPU Turbo clock speed

Did you know that most virtualized environments do not take advantage of CPU turbo clock speeds?

What does that mean for the power user? For single-threaded applications (such as the majority of CAD/CAM, CAE, and BIM), a 1:1 workstation can process tasks in half the time of a virtualized server in the cloud.

Is this across all CPUs? Yes, for all Intel Core Ultra. An excellent example is the ThinkStation P3 Ultra SFF with an Intel Core Ultra desktop processors (Series 2) and Intel vPro, which can reach turbo clock speeds up to 5.7GHz—that's more than 100% higher than a typical virtual machine running on a Tier 1 hypervisor.



Manage your fleet of workstations with the industry's first BMC (Baseboard Management Controller) card for workstations. Control, manage, monitor, and secure systems in the data center or at the desk from anywhere. Complement existing software-based tools from Lenovo, such as Lenovo Device Manager, or integrate with your existing management tools.

ThinkStation BMC

True out-of-band remote management

- Monitor system status and health
- Manage firmware and BIOS updates
- Remote power cycling
- Provision and deploy remote OS
- FIPS 140-2 Compliant encryption
- No ongoing fees

Recommended remote workstations

Lenovo ThinkStation epitomizes form and function. They can be configured to suit a wide variety of industry software applications, dataset sizes, customer workflows, and project budgets. Available directly or through our flexible Workstation-as-a-Service procurement model.

	ThinkStation P3 Ultra SFF	ThinkStation P7	ThinkStation PX
CPU » Up to	» Intel Core Ultra 9 processor (Series 2) with Intel vPro processors » 24 cores, 5.7GHz	» Intel® Xeon® W-3500 processor » 60 cores, 4.8GHz	» Dual 5th Gen Intel® Xeon® Scalable processors » 128 cores, 64 cores per CPU, 4.1GHz
Memory » Up to	» 128GB DDR5 6400MT/s	» 2TB DDR5 4800MHz	» 4TB DDR5 5600MHz
GPU » Up to	» NVIDIA RTX™ 4000 SFF Ada Generation GPU	» 3x NVIDIA RTX™ 6000 Ada Generation GPU	» 4x NVIDIA RTX™ 6000 Ada Generation GPU
Storage » Up to	» 16TB with 4 drives	» 52TB with 7 drives	» 60TB with 9 drives
User Density	» 1:1	» 1:1 » 3 users w/dedicated GPU » Scalable with vWS based on profile	» 1:1 » 3 users w/dedicated GPU » Scalable with vWS based on profile

Ready to transform your remote workflows with Lenovo Access?

Connect with your Lenovo representative to learn more.

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